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Unjust Enrichment: An Alternative to Tort Law and Human Rights in the Climate Change Context?

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UNJUST ENRICHMENT: AN ALTERNATIVE TO TORT LAW AND HUMAN RIGHTS IN THE CLIMATE CHANGE CONTEXT?

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Abstract: It is generally accepted within the scholarly international community that global climate change is occurring and is due at least in part to anthropogenic activity. Strategies to mitigate climate change harms and adapt to inevitable climate change-induced consequences are influencing legal, political, and human rights frameworks. Thus far, international litigation attempts to hold emitters accountable have been unsuccessful: Tuvalu's threat to sue the United States and Australia at the International Court of Justice, and the Inuit's petition to the Inter-American Commission on Human Rights were both hampered by procedural and substantive legal issues. Perhaps in response, the United Nations and a range of other actors have taken steps since 2005 to enhance the linkages between climate change and human rights as a way to augment the obligations of states to protect their citizens and enhance international cooperation in addressing climate change. While necessary in the grand scheme, this progress does not immediately create a remedy for some Small Island Developing States ("SIDS"), such as Tuvalu. This comment argues that tort and human rights-based litigation may not be the most effective approach for SIDS facing the dire consequences of climate change. Rather, SIDS may benefit from pursuing compensation based on unjust enrichment, focusing on benefits conferred on emitters rather than harms caused or rights violated. If successful, unjust enrichment litigation would allow these States to avoid the specific proximate cause, cause-in-fact, and sanction requirements associated with torts, and the legal obligation and enforcement problems associated with the process of developing and clarifying human rights law, while simultaneously securing necessary funding to implement adaptation strategies.

I. INTRODUCTION

The projections described by the International Panel on Climate Change ("IPCC") reveal an anticipated incongruity in climate change impacts across the globe.[1] In particular, Small Island Developing States, ("SIDS") such as the country of Tuvalu, will suffer disproportionately from the impacts of climate change.[2] Importantly, SIDS such as Tuvalu have contributed to the movement to draw linkages between human rights and

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[1] *See* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *Summary for Policymakers*, *in* CLIMATE CHANGE 2007: IMPACTS, ADAPTATION AND VULNERABILITY: CONTRIBUTION OF WORKING GROUP II TO THE FOURTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 7-22 (M.L. Parry et al. eds., Cambridge Univ. Press 2007), *available at* http://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-spm.pdf.

[2] *See, e.g.*, Ruth Gordon, *The Climate of Environmental Justice: Taking Stock: Climate Change and the Poorest Nations: Further Reflections on Global Warming*, 78 U. COLO. L. REV. 1559, 1593-95 (2007).

climate change,[3] and have also contributed to attempts to build tort-based international climate change case law,[4] yet these developments have not produced any form of compensation for the country. Without the requisite funding to take immediate action, SIDS such as Tuvalu may face the destruction of their environment and livelihood,[5] with no feasible plan for adaptation.

This comment argues that countries such as Tuvalu may wish to pursue compensation to pay for adaptation strategies in international tribunals and domestic courts using the principle of unjust enrichment. Part II provides a synopsis of prevailing scientific analysis in support of climate change, contextualizes the climate change impacts experienced by Tuvalu, and identifies two existing policy responses to climate change. Part III considers the inadequate application of tort and human rights frameworks to the SIDS context. Part IV discusses the principle of unjust enrichment, its existence in international law, its applicability to the Tuvaluan context, and potential challenges SIDS may face in pursuing claims under this legal theory.

II. FOR SOME SIDS, MITIGATION AND ADAPTATION STRATEGIES ALONE CANNOT ADDRESS THE THREATS OF CLIMATE CHANGE

Scientists researching climate change emphasize that climate change stresses differ among every climatic zone.[6] SIDS are particularly at risk and will suffer disproportionately from the impacts of climate change.[7] The capacity for countries to adapt to their unique climate change-related experience depends on a number of factors, including economic and natural resource circumstances, "social networks, entitlements, institutions and governance, human resources, and technology."[8] Because SIDS tend to lack

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[3] *See* Marc Limon, *Human Rights and Climate Change: Constructing a Case for Political Action*, 33 HARV. ENVTL. L. REV. 439, 444 n.27 (2009).

[4] *See, e.g.*, Katherine McGrow, '*Climate refugee' nation Tuvalu ponders legal options against polluters*, PACIFIC.SCOOP, Sept. 9, 2009, http://pacific.scoop.co.nz/2009/09/climate-refugee-nation-tuvalu-ponders-legal-options-against-polluters/.

[5] *See, e.g.*, Gordon, *supra* note 2, at 1597.

[6] *See, e.g.*, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *Ch. 17: Assessment of adaptation practices, options, constraints and capacity*, *in* CLIMATE CHANGE 2007: IMPACTS, ADAPTATION AND VULNERABILITY: CONTRIBUTION OF WORKING GROUP II TO THE FOURTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 720 (M.L. Parry et al. eds., Cambridge Univ. Press 2007), *available at* http://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-chapter17.pdf. Examples of "climatic zones" include "dryland, floodplains, mountains, Arctic, and so on." *Id.*

[7] *See, e.g.*, Gordon, *supra* note 2, at 1593-95.

[8] INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 6, at 719.

many of these adaptive factors, it is likely that climate change adaptation will be particularly challenging for such countries.[9]

A. Human-Caused Climate Change and Associated Sea Level Rise Threaten SIDS

Scientific analysis attributes climate change to human activity. Representing much of the scientific community, the IPCC[10] defines climate change as "any change in climate over time, whether due to natural variability or as a result of human activity."[11] Even so, the Third Assessment Report of the IPCC establishes that human activity, and particularly greenhouse gas emissions ("GHGs"), is the driving force behind global warming.[12] The IPCC predicts that current trends in global warming will exacerbate the number of people suffering from disease, hunger, malnutrition, and death; and injury from heat waves, floods, storms, fires, and drought.[13]

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[9] *See generally* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *Ch. 16: Small islands*, *in* CLIMATE CHANGE 2007: IMPACTS, ADAPTATION AND VULNERABILITY: CONTRIBUTION OF WORKING GROUP II TO THE FOURTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (M.L. Parry et al. eds., Cambridge Univ. Press 2007), *available at* http://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-chapter16.pdf.

[10] The IPCC's reports represent the most comprehensive and accepted data on the subject of climate change. Specifically, the IPCC states: "[t]he Intergovernmental Panel on Climate Change (IPCC) was set up jointly by the World Meteorological Organization and the United Nations Environment Programme to provide an authoritative international statement of scientific understanding of climate change. The IPCC's periodic assessments of the causes, impacts and possible response strategies to climate change are the most comprehensive and up-to-date reports available on the subject, and form the standard reference for all concerned with climate change in academia, government and industry worldwide. Through three working groups, many hundreds of international experts assess climate change in this Fourth Assessment Report." INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *Introduction to the Working Group II Fourth Assessment Report*, *in* CLIMATE CHANGE 2007: IMPACTS, ADAPTATION AND VULNERABILITY: CONTRIBUTION OF WORKING GROUP II TO THE FOURTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE i (M.L. Parry et al. eds., Cambridge Univ. Press 2007), *available at* http://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-intro.pdf.

[11] INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *Summary for Policymakers*, *in* CLIMATE CHANGE 2007: THE PHYSICAL SCIENCE BASIS: A REPORT OF WORKING GROUP I OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 2 n.1 (S. Solomon et al. eds., Cambridge Univ. Press 2007), *available at* http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-spm.pdf.

[12] INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *Summary for Policymakers*, *in* CLIMATE CHANGE 2001: THE SCIENTIFIC BASIS: CONTRIBUTION OF WORKING GROUP I TO THE THIRD ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 10 (J.T. Houghton et al. eds., Cambridge Univ. Press 2001), *available at* http://www.grida.no/climate/ipcc_tar/wg1/pdf/WG1_TAR-FRONT.pdf (" . . . there is new and stronger evidence that most of the . . . warming observed over the last 50 years is attributable to human activities.").

[13] John H. Knox, Essay, *Climate Change and Human Rights Law*, 50 VA. J. INT'L L. 163, 165 (2009) (citing INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2007: IMPACTS, ADAPTATION AND VULNERABILITY 393 (Cambridge Univ. Press 2007)).

Furthermore, the global scientific community agrees that anthropogenic sea level rise will affect millions of people living near coasts. Coastal zones will experience significant erosion and other risks due to climate change and sea level rise.[14] Coastal flooding alone, without intervention, may grow more than tenfold by 2080, thereby affecting over 100 million people per year.[15] To make matters worse, the IPCC anticipates continuously rising sea levels, cyclone intensification, and intensification of storm surges.[16]

SIDS are particularly vulnerable to the impacts of climate change and will suffer disproportionately from its impacts.[17] Their extreme vulnerability is due both to economic and geographic circumstances.[18] Many SIDS face economic disadvantages associated with remoteness, susceptibility to natural disasters, and heavy dependence on international trade, and on local natural resources.[19] In addition, twelve of the fifty-one SIDS are categorized under the United Nations as Least Developed Countries, a circumstance which further exacerbates their difficulty in responding to climate change in an adequate manner.[20]

SIDS' geographic context contributes to their climate change impact vulnerability because they are increasingly exposed to and influenced by large ocean-atmospheric interactions; shifts in severe weather such as El Niño, monsoons, cyclones, and hurricanes; and sea-level rise.[21] Sea level rise is particularly alarming for SIDS as many of these islands rise less than four meters above sea level.[22] The 2007 assessment of the IPCC projected a

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[14] *See id.* (citing INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2007: IMPACTS, ADAPTATION AND VULNERABILITY 317 (Cambridge Univ. Press 2007)).

[15] INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *Ch. 6: Coastal Systems and Low-Lying Areas*, *in* CLIMATE CHANGE 2007: IMPACTS, ADAPTATION AND VULNERABILITY: CONTRIBUTION OF WORKING GROUP II TO THE FOURTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 339 (M.L. Parry Et al. eds, Cambridge Univ. Press 2007), *available at* http://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-chapter6.pdf.

[16] *See* Knox, *supra* note 13, at 165 (citing INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2007: IMPACTS, ADAPTATION AND VULNERABILITY 317 (Cambridge Univ. Press 2007)).

[17] *See, e.g.*, Gordon, *supra* note 2.

[18] *See generally* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 9.

[19] *See* U.N. Framework Convention on Climate Change [UNFCCC], *Vulnerability and Adaptation to Climate Change in Small Island Developing States: Background paper for the expert meeting on adaptation for small island developing States*, 4 (2007), *available at* http://unfccc.int/files/adaptation/adverse_effects_and_response_measures_art_48/application/pdf/200702_sids_adaptation_bg.pdf.

[20] *See id.*

[21] *Id.*

[22] Alexander Gillespie, *Small Island States in the Face of Climate Change: The End of the Line in International Environmental Responsibility*, 22 UCLA J. ENVTL. L. & POL'Y 107, 113 (2003/2004) (citing INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, IPCC TECHNICAL PAPER V: CLIMATE CHANGE AND BIODIVERSITY 34 (Habiba Gitay et al. eds., 2002)).

sea level rise of 0.19 meters to 0.58 meters by the end of the century.[23] Newer studies predict a more drastic scenario: an increase in sea level rise of 0.5 and 1 meter by 2100.[24] Rising sea levels have immediate consequences for small island states: infrastructure and settlements are often located near the shore, and are thus threatened by rising waters.[25] The IPCC has found that islands face increasing "frequency and severity of flooding from sea surges . . . ; eroding beaches undermine fishing and tourism, two critical economic bases for most small island states . . . . [Additionally,] their freshwater resources are likely to be 'seriously compromised' as a result of rising sea levels and reduced rainfall in summer months."[26] Therefore, SIDS face tremendous degradation of the island environments upon which their economies rely, which in turn also suffer and decline.[27] Ultimately, SIDS may face total destruction and the end of their existence as communities.[28]

Thus, countries such as Tuvalu, with significant coastal exposure, will likely experience many of the negative consequences anticipated by the IPCC. A particularly offensive component to this scenario is the fact that SIDS emit less than 1.5% as much GHGs as do industrial countries.[29] Despite the fact that SIDS have contributed very little to climate change, they will suffer disproportionately from its negative impacts.[30] Consequently, they will be forced to shoulder the burden of activities for which they are not responsible.

B. A Case Study on SIDS: Tuvalu Faces Particularly Threatening Risks Due to Climate Change

Tuvalu's geography makes it particularly vulnerable to sea level rise. The country is located between Hawaii and Australia and is one of nine atolls in the South Pacific comprising the Oceana island group.[31] It is

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[23] John H. Knox, Symposium, *Linking Human Rights and Climate Change at the United Nations*, 33 HARV. ENVTL. L. REV. 477, 479 (citing IPCC, CLIMATE CHANGE 2007: IMPACTS, ADAPTATION AND VULNERABILITY 323-24 (Cambridge Univ. Press 2007)).

[24] *Id.* (citing *A Sinking Feeling*, ECONOMIST, Mar. 14, 2009, at 82).

[25] *See id.* at 479-80 (citing IPCC, CLIMATE CHANGE 2007: IMPACTS, ADAPTATION AND VULNERABILITY 689, 701 (Cambridge Univ. Press 2007)).

[26] *Id.* at 480 (citing IPCC, CLIMATE CHANGE 2007: IMPACTS, ADAPTATION AND VULNERABILITY 689, 695, 697, 701 (Cambridge Univ. Press 2007)).

[27] *See* Gordon, *supra* note 2, at 1597.

[28] *Id.*

[29] U.N. Framework Convention on Climate Change [UNFCCC], *Climate Change: Small Island Developing States* 9 (2005), *available at* http://unfccc.int/resource/docs/publications/cc_sids.pdf.

[30] *See, e.g.*, Gordon, *supra* note 2, at 1593.

[31] *See* Henry W. McGee, Jr., *Litigating Global Warming: Substantive Law in Search of a Forum*, 16 FORDHAM ENVTL. L. REV. 371, 382 (2005).

"composed entirely of reef islands on atolls and table reefs and is thus highly vulnerable to inundation and coastal erosion, particularly in light of expected future rises in seal level."[32] Tuvalu covers twenty-six square kilometers, with twenty-four kilometers of coastline, and a population of approximately 11,000.[33] Its highest point lies just five meters above sea level.[34] In 2000, Tuvalu appealed to neighboring Australia and New Zealand to take in its citizens if rising sea levels should make the country uninhabitable,[35] but its efforts were unsuccessful.[36]

Meanwhile, Tuvalu continues to face the problems of sea-level rise head-on. Recently, Tuvalu's capital island, Fongafale islet of Funafuti Atoll, flooded during spring high tides.[37] In 1997, the islet of Tepuka Savilivili was struck by three cyclones.[38] An estimated 6.7% of Tuvalu's land was removed and washed away by these cyclones, including the islet's vegetation cover. One study posits that sea-level in the Tuvalu region is rising, based on data which suggests that relative sea-level rise at Funafuti, Tuvalu was 2 ± 1 milimeter per year over the years spanning 1950 to 2001.[39] Clearly, such trends should not be ignored.

Tuvalu's National Adaptation Programme of Action ("NAPA")[40] identifies key environmental climate change stresses in six significant sectors: coastal zones, soils, water resources, land and the marine

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[32] Hiroya Yamano et al., *Atoll Island Vulnerability to Flooding and Inundation Revealed by Historical Reconstruction: Fongafale Islet, Funafuti Atoll, Tuvalu*, 57 GLOBAL & PLANETARY CHANGE 407, 409 (2007).

[33] *See* CIA World Factbook: Tuvalu, https://www.cia.gov/library/publications/the-world-factbook/geos/tv.html (last visited Sept. 26, 2010).

[34] *Id.*

[35] *Id.*

[36] Australia has effectively closed its doors to Tuvalu, while New Zealand has agreed to admit a maximum of 75 Tuvaluans per year, "who must be 'of good character and health, have basic English skills, have a job offer in New Zealand, and be under 45 years of age.'" Rosemary Rayfuse, *W(h)ither Tuvalu? International Law and Disappearing States*, 9 U.N.S.W. Law Research Paper No. 9, 9 (2009), *available at* http://law.bepress.com/cgi/viewcontent.cgi?article=1151&context=unswwps.

[37] Yamano, *supra* note 32, at 408.

[38] Kennedy Warne, *Tuvalu: drowning or waving: the low-lying islands of the Pacific Nation of [Tuvalu] have long been seen as the most likely victims of global climate change. And already, several islands are experiencing regular episodes of flooding. But is there any truth behind the headline stories of an imminent exodus?*, 80 GEOGRAPHICAL 54, 55-56 (2008).

[39] John A. Church, Neil J. White & John R. Hunter, *Sea-Level Rise at tropical Pacific and Indian Ocean Islands*, 53 GLOBAL & PLANETARY CHANGE 155, 164, 166 (2006).

[40] The UNFCCC describes National Adaptation Programmes of Action (NAPAs) as plans that "provide a process for Least Developed Countries (LDCs) to identify priority activities that respond to their urgent and immediate needs to adapt to climate change—those for which further delay would increase vulnerability and/or costs at a later stage." UNFCCC, National Adaptation Programmes of Action, http://unfccc.int/national_reports/napa/items/2719.php (last visited Oct. 28, 2010).

environment, agriculture, and health.[41] Tuvalu's NAPA also predicts that climate change and variability will adversely affect biophysical processes in the following ways:

> The vulnerability of communities to impacts [of] climate change, sea level rise and extreme event[s] will increase due to the lack of national economic resources and limited investment capacity, the high dependency of communities on natural resources, and the lack of institutional capacity to address climate change . . . . Increasing intensity of climate change impacts will significantly decrease fruit tree yields, especially the breadfruit and coconut trees. Thus, availability of nutritious domestic foods will be at risk in the future, affecting the livelihood of the people who depend solely on the natural resource base . . . .[42]

Furthermore, due to climate change and sea level rise, Tuvalu has already observed:

> a) High groundwater level[s] during high rainfall intensities and rising sea level; b) High incidences of water scarcity due to high frequency of low rainfall days and prolonged drought, especially in highly populated areas such as Funafuti; c) Decrease in agricultural productivity due to pest and fruit flies infestation; d) Decrease in coral and lagoon fisheries productivity due to the high soil erosion burying adjacent corals; e) Increasing severity of coastal erosion; f) Increasing and wider saltwater intrusion into coastal areas and pulaka pits; and g) Coastal flooding and inundation.[43]

Thus, the island nation of Tuvalu has experienced and will continue to experience severe problems associated with climate change, which may ultimately force the country to relocate its population.[44]

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[41] TUVALU DEP'T. OF ENV'T., MINISTRY OF NAT. RES., ENV'T., AG., AND LANDS, TUVALU'S NATIONAL ADAPTATION PROGRAMME OF ACTION 19 (2007), http://unfccc.int/resource/docs/napa/tuv01.pdf (last visited Oct. 28, 2010).

[42] *Id.* at 21.

[43] *Id.* at 21-22.

[44] Tuvalu has already been in discussion with Australia and New Zealand about relocating its citizens. *See* Rayfuse, *supra* note 36, at 9.

C. Room for Improvement: Complementary Policy Responses to Climate Change

Two complementary strategies, mitigation and adaptation, dominate the policy responses to climate change. Much of the debate around climate change has, until fairly recently, dealt with the mitigation of GHGs.[45] In 2001, the IPCC Third Assessment Report produced by IPCC Working Group II argued that mitigation and adaptation should be developed simultaneously in the global response to climate change.[46] The ensuing Report determined that "adaptation is a necessary strategy at all scales to complement climate change mitigation efforts," and "those with the least resources have the least capacity to adapt and are the most vulnerable."[47] Policy responses to climate change have thus focused on these two strategies.

Mitigation includes reducing GHGs in an effort to abate and prevent the further exacerbation of climate change.[48] Mitigation efforts employ strategies to enhance the removal of GHGs by creating GHG "sinks."[49] Such GHG sinks refer to "forests, vegetation or soils that can reabsorb CO_2"[50] or "process[es], activit[ies] or mechanism[s] which remove[] a greenhouse gas, an aerosol or a precursor of a greenhouse gas from the atmosphere."[51] International efforts at mitigation include the Kyoto Protocol,[52] followed by the non-binding Copenhagen Accord.[53] Because

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[45] According to the IPCC, "Greenhouse gases effectively absorb thermal infrared radiation, emitted by the Earth's surface, by the atmosphere itself due to the same gases, and by clouds. Atmospheric radiation is emitted to all sides, including downward to the Earth's surface. Thus greenhouse gases trap heat within the surface-troposphere system. This is called the greenhouse effect." INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *Summary for Policymakers*, *in* CLIMATE CHANGE 2007: THE PHYSICAL SCIENCE BASIS, GLOSSARY: A REPORT OF WORKING GROUP I OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, 946 (A.P.M. Baede, ed., Cambridge Univ. Press 2007), *available at* http://www.ipcc-wg1.unibe.ch/publications/wg1-ar4/ar4-wg1-annexes.pdf.

[46] INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *Summary for Policymakers*, *in* CLIMATE CHANGE 2001: IMPACTS, ADAPTATION AND VULNERABILITY: CONTRIBUTION OF WORKING GROUP II TO THE THIRD ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (Cambridge Univ. Press 2001), *available at* http://www.grida.no/climate/ipcc_tar/wg2/pdf/wg2TARspm.pdf.

[47] *Id.*

[48] IAN BURTON, ELLIOT DIRINGER & JOEL SMITH, ADAPTATION TO CLIMATE CHANGE: INTERNATIONAL POLICY OPTIONS 1 (2006), *available at* http://www.pewclimate.org/docUploads/PEW_Adaptation.pdf.

[49] U.N. Framework Convention on Climate Change [UNFCCC], *Fact Sheet: The need for mitigation* 1 (Nov. 2009), *available at* http://unfccc.int/files/press/backgrounders/application/pdf/press_factsh_mitigation.pdf.

[50] *Id.*

[51] U.N. Framework Convention on Climate Change [UNFCCC], article 1(8), U.N. Doc. FCCC/INFORM/84, 1771 U.N.T.S. 107, (May 9, 1992), *available at* http://unfccc.int/resource/docs/convkp/conveng.pdf.

[52] INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *Chapter 1: Introduction*, *in* CLIMATE CHANGE 2007: CONTRIBUTION OF WORKING GROUP III TO THE FOURTH ASSESSMENT REPORT OF THE

some major emitters refuse to curb their GHG emissions, mitigation may only contribute to the prevention of further climate change (or at least, limiting the cumulative effects of ongoing emissions) rather than reversing climate change.[54]

Adaptation, on the other hand, concerns the efforts of states to cope with the impacts of climate change that cannot be avoided.[55] Adaptation measures encompass a number of strategies to avoid the negative environmental and human tolls of climate change.[56] Historically, measures to cope with weather and climate-related impacts have included crop diversification, irrigation, water management, disaster risk management, and insurance.[57] Recent adaptation studies have examined more drastic adaptive strategies focused on migration, resettlement, and relocation.[58] Increasingly, countries with coastal areas are exploring innovative adaptation practices in response to rising sea levels and increased storm surges—for example, enhancing coastal infrastructure, constructing cyclone-resistant buildings, "capacity building for shoreline defense system design," instituting coastal realignment programs, and encouraging coastal landowners to "act in ways that anticipate sea-level rise."[59] Notably, the IPCC report comments that development and implementation of adaptation measures face considerable "environmental, economic, informational, social, attitudinal and behavioral

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INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 97 (B. Metz et al. eds., Cambridge Univ. Press 2007), *available at* http://www.ipcc.ch/pdf/assessment-report/ar4/wg3/ar4-wg3-chapter1.pdf. Countries that have ratified the Kyoto Protocol have agreed to reduce their carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbon, and perfluorocarbon emissions. Kyoto Protocol to the United Nations Framework Convention on Climate Change Annex A, U.N. Doc. FCCC/CP/1997/L.7/Add.1 (Dec. 10, 1997). As of October 2010, 191 countries and the European Union have signed and ratified the Protocol. U.N. Framework Convention on Climate Change [UNFCCC], *Status of Ratification of the Kyoto Protocol*, http://unfccc.int/kyoto_protocol/status_of_ratification/items/2613.php (last visited Oct. 20, 2010) [hereinafter *Kyoto Status of Ratification*]. The United States has signed but has not ratified the Kyoto Protocol. *Id.* The Kyoto Protocol expires in 2012, and the U.N. Climate Change Conference in Copenhagen, held in December 2009, was intended to produce the successor to the Kyoto Protocol. *See* Daniel Bodansky, *Current Development: The Copenhagen Climate Change Conference: A Postmortem*, 104 AM. J. INT'L. L. 230, 230 (2010).

[53] The non-binding Accord "does not establish emissions reduction targets . . . nor does it establish a deadline for the signing of a binding international agreement that would do so." Hannah Chang, *International Executive Agreements on Climate Change*, 35 COLUM. J. ENVTL. L. 337, 338-39 (2010). Additionally, the Accord relies on domestic actions to establish emissions targets for developed countries, while, for example, the United States cannot pledge any emissions reduction targets without passing corresponding climate legislation. *Id.*

[54] *See* Jason A. Lowe et. al., *How difficult is it to recover from dangerous levels of global warming?*, 4 ENVTL. RES. LETTERS. 1, 8 (2009).

[55] *See* BURTON, *supra* note 48.

[56] *Id.*

[57] INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 6, at 719.

[58] *Id.* at 736.

[59] *Id.* at 722.

barriers," and that developing states are further hampered by a lack of available resources and insufficient adaptive capacity.[60] Thus, some developing states that have contributed the least to GHGs are now in the precarious position of facing some of the most drastic adaptation strategies, with relatively few resources to do so.[61]

III. TORT LAW AND HUMAN RIGHTS FRAMEWORKS MAY NOT MEET THE IMMEDIATE NEEDS OF SIDS' CLIMATE CHANGE VICTIMS

Two case studies demonstrate that attempts to litigate international climate change claims based in tort law and human rights violations are unlikely to be successful. This is due in part to the fact that these frameworks do not adequately contemplate the unique and novel situations faced by climate change victims. Tort claims are subject to attenuated causal chains, thus making them difficult to prove in court. Human rights-based frameworks for addressing climate change are still in preliminary stages and are not yet developed enough to be practical for the particular adaptation context faced by worst-case scenario island nations.

A. International Litigation Responses to Climate Change Have Employed Tort Law and Human Rights with Little Success

Two of the most publicized instances of attempted climate change litigation employed tort law and human rights claims. The tort claim, announced by Tuvalu in 2002, consisted of a threat to sue the United States and Australia for those countries' contributions to the harms caused by emitting GHGs. The second, beginning in 2005, involved the Inuit Circumpolar Council's ("ICC") petition submitted by Sheila Watt-Cloutier to the Inter-American Commission on Human Rights ("IACHR"). Unfortunately, both concluded without legal success: Tuvalu's threat to sue never materialized, and the IACHR decided against processing the petition.

1. Tuvalu's Threat to Sue the United States and Australia Contemplated a Tort Claim Before the International Court of Justice

The Kyoto Protocol binds ratifying countries to specific reduction goals for GHGs.[62] Although the United States and Australia participated in

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[60] Daniel A. Farber, *Adapting to Climate Change: Who Should Pay*, 23 J. LAND USE & ENVTL. L. 1, 16 (2007).

[61] *See, e.g.*, Gordon *supra* note 2, at 1593-95.

[62] Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 10, 1997, 37 I.L.M. 22 (1998). *See also* Gordon, *supra* note 2, at 1586.

Protocol drafting negotiations and agreed symbolically to certain reductions in emissions, neither country had ratified the Protocol by 2002.[63] Thus, although the Protocol became effective, it remained non-binding upon two of the biggest emitters in the world.

According to some accounts, under former Prime Minister Koloa Talake, Tuvalu began preparing to sue the United States and Australia in 2002 in the International Court of Justice ("ICJ") for failing to ratify the Kyoto Protocol, and contributing to the rising sea levels experienced by the country.[64] Some descriptions of the threat to sue allude to a lawsuit based in negligence.[65] Other accounts point more generally to a tort liability-based theory using such language as "specific causation" and "responsibility," or "wrongfully caused or will cause damage,"[66] all of which conjure the concepts of wrongful acts that result in injury associated with tort frameworks. The apparent motivation for the lawsuit was to generate funds in damages and to relocate its population.[67] A law firm in Melbourne had advised the country to pursue its claims for compensation in the ICJ.[68] Prime Minister Talake announced that Kiribati and the Maldives would join the lawsuit.[69] However, Tuvalu's subsequent Prime Minister, Saufatu Sopoanga, dropped the suit before it could materialize.[70]

2. The Inuit Circumpolar Council Unsuccessfully Contemplated a Human Rights Claim

Yet another heavily publicized attempt at climate change litigation involved the Inuit and the ICC human rights-based petition in 2005. To date,

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[63] Rebecca Jacobs, *Treading Deep Waters: Substantive Law Issues in Tuvalu's Threat to Sue the United States in the International Court of Justice*, 14 PAC. RIM. L. & POL'Y J. 103, 114 (2005). Australia has since ratified the Kyoto Protocol in 2007. *See Kyoto Status of Ratification*, *supra* note 52.

[64] Akiko Okamatsu, *Problems and Prospects of International Legal Disputes on Climate Change* 1, Berlin Conference on the Human Rights Dimensions of Global Environmental Change, Dec. 2, 2005, *available at* http://www.sprep.org/att/IRC/eCOPIES/Countries/Tuvalu/47.pdf; *see also* Warne, *supra* note 38, at 55.

[65] *See, e.g.*, Jennifer Kilinski, Comment, *International Climate Change Liability: A Myth or A Reality?*, 18 J. TRANSNAT'L L. & POL'Y 377, 393 n.75 (2009).

[66] *See, e.g.*, McGrow, *supra* note 4; Joyeeta Gupta, *Legal Steps Outside the Climate Convention: Litigation as a Tool to Address Climate Change*, 16 REV. EUR. COMMUNITY & INTL. ENVTL L. 76, 78 (2007).

[67] *See* Leslie Allen, *Will Tuvalu Disappear Beneath the Sea*?, SMITHSONIAN MAG., Aug., 2004, at 5.

[68] *See* Mark Chipperfield, *Drowning Islands of Tuvalu Sue UK Government to Stay Afloat.*, THE SCOTSMAN PUBLICATIONS LTD, Apr. 7, 2002.

[69] *Tiny Pacific Nation Takes On Australia*, BBC NEWS, Mar. 4, 2002, http://news.bbc.co.uk/2/hi/asia-pacific/1854118.stm (last visited Oct. 30, 2010).

[70] *See* McGrow, *supra* note 4.

the ICC[71] petition submitted by Sheila Watt-Cloutier to the IACHR[72] is the only concrete legal claim taken to an international tribunal on behalf of climate change victims.[73] The petition represented the American and Canadian Inuit.[74] It alleged that the United States had continuously violated the petitioners' human rights by failing to limit its GHG emissions.[75] The petition linked the impacts of climate change on Inuit life to human rights, including the "rights to life, health, property, cultural identity, and self determination."[76] While the Commission did hold a hearing on the connection between human rights and climate change in March 2007, it determined that it would not process the petition, stating that "the information provided does not enable us to determine whether the alleged facts would tend to characterize a violation of [protected human] rights."[77] No further action has been taken by the Commission since the hearing.[78] While the petition was not legally successful, it has been recognized for publicizing the link between human rights and climate change.

B. Tort Law Is an Inadequate Basis for International Climate Change Litigation Due to the Complexity of Causal Chains in Climate Change Cases and Other Procedural Hurdles

Tort law is a problematic basis for international climate change litigation primarily due to the complexity of establishing the requisite elements of tort liability in relation to the complex causal chain of climate change and associated harms. These substantive issues, in addition to other

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[71] The ICC "is an international non-governmental organization representing about 150,000 Inuit in Alaska, Canada, Greenland (Denmark), and Chukotka (Russia)." Timo Koivurova, *International Legal Avenues to Address the Plight of Victims of Climate Change: Problems and Prospects*, 22 J. ENVTL. L. & LITIG. 267, 285 (2007) (citing INUIT CIRCUMPOLAR COUNCIL, INUIT CIRCUMPOLAR CONFERENCE, http://inuitcircumpolar.com/index.php?ID=16&Lang=En&Parent ID=16).

[72] The IACHR is "one of two bodies in the Inter-American system for the promotion and protection of human rights . . . . The IACHR is an autonomous organ of the Organization of American States (OAS)." Organization of American States: Inter-American Commission on Human Rights, http://www.cidh.oas.org/what.htm (last visited Oct. 30, 2010).

[73] Koivurova, *supra* note 71.

[74] *Id.* (citing INUIT CIRCUMPOLAR CONFERENCE, PETITION TO THE INTER-AMERICAN COMMISSION ON HUMAN RIGHTS SEEKING RELIEF FROM VIOLATIONS RESULTING FROM GLOBAL WARMING CAUSED BY ACTS AND OMISSIONS OF THE UNITED STATES 1 (2005), *available at* http://www.inuitcircumpolar.com/files/uploads/icc-files/FINALPetitionICC.pdf).

[75] Limon, *supra* note 3, at 441. Specifically, as the world's leading emitter of GHGs at the time, the petitioners alleged that the United States was violating human rights by failing to alter its climate change policies and by not ratifying the Kyoto Protocol. *See* Joanna Harrington, *Climate Change, Human Rights, and the Right to Be Cold*, 18 FORDHAM ENVTL. L. REV. 513, 513 (2007).

[76] Knox, *supra* note 13, at 191.

[77] Knox, *supra* note 23, at 482.

[78] Knox, *supra* note 13, at 192.

procedural issues, support the proposition that Tuvalu's lawsuit against the United States and Australia in the ICJ would have failed.[79]

1. Tuvalu Would Face a Number of Substantive Legal Hurdles in a Claim Based in Tort Liability Brought Before the ICJ

To establish a claim of negligence, a plaintiff must prove that the defendant owed the plaintiff a duty of care, that the duty was breached, and that the breach was the cause of the damage claimed by the claimant.[80] The most obvious drawback of tort liability-based climate change litigation is the complexity of establishing a causal link between a particular emitter and a particular country's experience of climate change. One scholar has identified a potential climate change causal link as approaching the following:

> 1) companies produce fuels, power, engines, and other products; 2) consumer use of these goods and products generates carbon dioxide emissions, which rise into the atmosphere; 3) the emissions combine with other greenhouse gas emissions to warm the Earth via the greenhouse effect; 4) this warming causes sea levels to rise, permafrost to thaw, and sea ice to melt and thin; and 5) these effects cause damage to plaintiffs' property. Arguably, this end result has been foreseeable for several years.[81]

Clearly, such a complex causal chain carries with it an arduous burden of proof, and presents significant opportunities for failure.

Tracing harms and apportioning damages among multiple defendants would be difficult under a climate change fact pattern. Tracing harms in the climate change scenario is particularly complicated because establishing specific causal links between a GHG emitter and a particular harm caused faces significant scientific limitations, due in part to the fact that harms caused by GHGs are dispersed globally rather than locally. Consequently,

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[79] For a general discussion of procedural issues raised by international climate change litigation, including venue and standing, *see generally* Andrew L. Strauss, *The Legal Option: Suing the United States in International Forums for Global Warming Emissions*, 33 ENVTL L. REP. 10185 (2003), *available at* http://www.climatelaw.org/articles/strauss_elr_article.pdf.

[80] *See, e.g.*, RESTATEMENT (THIRD) OF TORTS §6 (2002).

[81] David A. Grossman, *Warming Up to a Not-So-Radical Idea: Tort-Based Climate Change Litigation*, 28 COLUM. J. ENVTL. L. 1, 27 (2003). In the alternative to a negligence claim, an action based in the tort of public nuisance may alleviate some of the causation problems associated with negligence tort claims. *See, e.g.*, Donna Green & Kristy Ruddock, *Could Litigation Help Torres Strait Islanders Deal With Climate Impacts?*, 9 SUSTAINABLE DEV. L. & POL'Y 23, 27 (2009).

all emitters contribute to some extent to all impacts, thus necessitating a proportional liability scheme determined by morality and policy, rather than merely science and law.[82] For example, liability could be based on "a source's total emissions, or only on those emissions in excess of some 'optimal' level;"[83] on the basis of "average or marginal impact of emissions;"[84] on the basis of current or cumulative/historic emissions;[85] or on current or projected harms.[86]

Substantive complications under international and tort liability law would have greatly hampered the Tuvaluan claim before the ICJ.[87] First, Tuvalu would need to prove that the applicable law here, tort liability, is a general principle of international law.[88] Then, to prove its tort claim, Tuvalu would need to demonstrate that the United States and Australia owed a duty of care to the island nation, but breached that duty. The most obvious obstacle would be that Tuvalu would need to establish a causal relationship between Australia and the United States's excessive GHG emissions, and the harm caused.[89] Moreover, Tuvalu would need to determine appropriate damages. Because the "law of torts attempts primarily to put an injured person in a position as nearly as possible equivalent to his position prior to the tort,"[90] constructing a world based on behavior in which the two countries conformed to the requisite duty of care would likely be purely speculative, due to the complex scale of such a scenario.

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[82] Daniel A. Farber, *Apportioning Climate Change Costs*, 26 UCLA J. ENVTL. L. & POL'Y 21, 40 (2007/2008).

[83] *Id.*

[84] *Id.* at 43.

[85] *Id.* at 45.

[86] *Id.* at 46.

[87] *See* Jacobs, *supra* note 63, at 117.

[88] Article 38(1) of the Statute of the ICJ establishes the four sources of international law the ICJ should apply, including international conventions and treaties, customary international law, general principles of law recognized by civilized nations, and judicial decisions and teachings of highly qualified publicists. *See* Statute of the International Court of Justice, art. 38(1), 59 Stat. 1031, 1060, T.S. No. 993.

[89] Jacobs, *supra* note 63, at 114; Okamatsu, *supra* note 64, at 2. Okamatsu adds that in 2005, Tuvalu began focusing on major U.S. and Australian corporations in the petroleum, automobile, weapons and tobacco sectors, seeking to sue these companies in their home countries for negligence in implementing mitigating measures. Okamatsu notes that such suits would pose problems because the alleged activities taken are not illegal under each country's domestic laws. Okamatsu further explains that a causal link from particular corporations to specific emissions or harms would also be extraordinarily difficult. *See also* Tom Price, *The Canary is Drowning: Tiny Tuvalu Fights Back Against Climate Change*, GLOBAL POL'Y F., Dec. 3, 2002, http://www.globalpolicy.org/component/content/article/172/30312.html (last visited Oct. 30, 2010) (explaining the difficulty of apportioning liability when there are multiple corporate defendants).

[90] *See* RESTATEMENT (SECOND) OF TORTS, § 901 cmt. A (1979).

2. Tuvalu Would Face a Number of Procedural Legal Hurdles in a Tort Liability Claim Brought Before the ICJ

In addition to the substantive defects the Tuvaluan case would have likely encountered, there would have been a number of procedural hurdles the country would have encountered at the ICJ. Primarily, the Tuvaluan lawsuit would not have been successful against both countries in the ICJ because the ICJ would not have had jurisdiction over the United States in the matter. For a state to bring a case before the ICJ, the court must have jurisdiction over all state parties.[91] Jurisdiction is primarily established by: 1) state consent ("compulsory jurisdiction of the court"), 2) mutual consent between the parties involved, or 3) authorization via treaty.[92] While the ICJ would have been an appropriate venue for a lawsuit against Australia, given that it accepts the court's jurisdiction without reservation,[93] jurisdiction over the United States would have been problematic and unlikely.[94] Thus, Tuvalu would have been precluded from bringing suit before the ICJ against the United States.

C. Though Developing, Human Rights Frameworks Are Currently Insufficient as an Effective Basis for International Climate Change Litigation

The clarification and progression of human rights should complement existing legal strategies in the climate change legal context, but the human rights framework cannot stand alone in helping to secure compensation for SIDS like Tuvalu. The application of human rights frameworks to SIDS experiencing negative climate change impacts may take place in two ways: first, conventional human rights can be invoked to support claims of rights

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[91] *See, e.g.*, International Court of Justice: Contentious Jurisdiction, http://www.icj-cij.org/jurisdiction/index.php?p1=5&p2=1 (last visited Jan. 24, 2010).

[92] Statute of the International Court of Justice, art. 36, 59 Stat. 1031, 1060, T.S. No. 993. Article 36 of the Statute of the ICJ states: 1) "The jurisdiction of the Court comprises all cases which the parties refer to it and all matters specially provided for in the Charter of the United Nations or in treaties and conventions in force. 2) The state parties to the present Statute may at any time declare that they recognize as compulsory ipso facto and without special agreement, in relation to any other state accepting the same obligation, the jurisdiction of the Court in all legal disputes concerning: a) the interpretation of a treaty; b) any question of international law; c) the existence of any fact which, if established, would constitute a breach of an international obligation; d) the nature or extent of the reparation to be made for the breach of an international obligation." *See also* Strauss, *supra* note 79, at 10185.

[93] *See id.*

[94] The United States withdrew from compulsory jurisdiction in 1986. *See, e.g.*, Strauss, *supra* note 79, at 10186. Thus, the United States would have to consent to jurisdiction, or stipulate to jurisdiction under treaty. In this case, the United States did not ratify the Kyoto Protocol, so jurisdiction by treaty would not apply.

infringement experienced by victims of climate change;[95] and second, evolving human rights can be clarified and then applied to support such claims of rights infringement.[96] SIDS have been active proponents of both the utilization and development of rights-based frameworks in response to climate change.[97]

From a SIDS perspective, efforts to utilize conventional human rights theories could rely on the Universal Declaration of Human Rights.[98] For example, Article 15 of the Universal Declaration of Human Rights provides that "no one shall be denied their nationality."[99] In 2007, Tuvalu's Prime Minister Apisai Ielemia stated "the climate change impact . . . is an infringement of our fundamental rights to nationality and statehood, as constituted under the Universal Declaration of Human Rights and other international conventions."[100] Surely, any forced relocation events due to climate change (e.g. rising sea levels and inundation of land) implicate challenges for sovereignty, statehood, and nationality.

More progressive approaches to the application of human rights attempt to recognize and strengthen the link between climate change and human rights by advocating for and codifying a human right to a safe or clean and secure environment.[101] One source of such a right could be the 1972 Stockholm Declaration on the Human Environment which states, "[m]an has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations."[102] Using this example, adverse consequences of climate change would be a violation of the rights guaranteed under a broad interpretation of the 1972 Stockholm Declaration on the Human Environment.

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[95] Gillespie, *supra* note 22, at 122.

[96] *Id.*

[97] *See, e.g.*, Apisai Ielemia, *A Threat to our Human Rights: Tuvalu's Perspective on Climate Change*, UN CHRONICLE (2007), http://www.un.org/wcm/content/site/chronicle/cache/bypass/home/archive/issues2007/pid/4824?ctnscroll_articleContainerList=1_0&ctnlistpagination_articleContainerList=true; *see also infra* text accompanying note 100; Limon, *supra* note 3, at 442 (discussing Maldivian President Maumoon Abdul Gayoom's statement in 2007 that the "world would need to reconceptualize climate change as a profoundly human issue with human causes and human consequences . . . including the effects of climate change on human rights.").

[98] Gillespie, *supra* note 22, at 122.

[99] *Id.*

[100] Ielemia, *supra* note 97.

[101] Gillespie, *supra* note 22, at 122.

[102] Stockholm Declaration on the Human Environment (June 16, 1972), in Report of the United Nations Conference on the Human Environment, sec. 1, UN Doc. A/CONF.48/14/Rev. 1 (1972), *reprinted in* 11 I.L.M. 1416 (1972), *quoted in* Gillespie, *supra* note 22, at 122-23.

Advocates of this second approach point to the law's development and practice using current illustrations: for example, Marc Limon notes that the first explicit attempt to draw the connection between human rights and climate change occurred in 2005 when the alliance of Inuit filed their petition with the Inter-American Commission on Human Rights.[103] Another major step of progress in developing this link occurred on March 28, 2008, when "the Maldives, along with seventy-eight co-sponsors from all regional groups, secured by consensus the adoption of the United Nations Human Rights Council Resolution 7/23 on 'Human Rights and Climate Change.'"[104] This was heralded as the first instance of official U.N. recognition via resolution that climate change has immediate "implications for the full enjoyment of human rights."[105] Professor John Knox[106] adds another important element to the development of the link between human rights and climate change. Knox notes that in January 2009, the Office of the United Nations High Commissioner for Human Rights ("OHCHR") examined the relationship and determined that climate change does threaten an array of human rights, but that it does not necessarily violate human rights. However, human rights law creates duties on states concerning climate change and those duties include an obligation of international cooperation.[107]

What is the function of developing an applicable human rights framework? In discussing the benefits of a rights-based approach to climate change, Limon observes that "[h]umanizing climate change . . . creates an ethical imperative to act that can with time translate into legal obligations . . . ."[108] Limon further asserts that a contribution that human rights principles can make to climate change policy is the emphasis on "accountability mechanisms, including . . . access to administrative and judicial remedies, and . . . emphasis given to procedural rights such as access to information and access to decision-making . . . ."[109] Finally, Limon notes

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[103] Limon, *supra* note 3, at 441. Limon is an advisor at the Permanent Mission of the Republic of Maldives to the United Nations Office at Geneva. He advises the Mission and the Maldives Ministry of Foreign Affairs on issues including international human rights policy and environmental policy.

[104] *Id.* at 443-44 (quoting Human Rights Council Res. 7/23, Rep. of the Human Rights Council, 7th Sess., March 3-28, 2008, U.N. Doc. A/HRC/7/78, at 65 (Mar. 28, 2008), *available at* http://daccess-dds-ny.un.org/doc/UNDOC/GEN/G08/146/62/PDF/G0814662.pdf?OpenElement).

[105] Human Rights Council Res. 7/23, *supra* note 104, *quoted in* Limon, *supra* note 3, at 444.

[106] John Knox is a professor of law at Wake Forest University. He has advised the U.N. on human rights and corporations, and has counseled the Center for International Environmental Law on human rights implications of climate change impacts on the Maldives.

[107] Knox, *supra* note 23, at 477.

[108] Limon, *supra* note 3, at 451.

[109] *Id.* at 452.

that the rights-based framework approach may emphasize international cooperation in addressing climate change.[110]

While the significance of such developments in the context of broadening the human rights framework cannot be overstated, the narrow application of such significant steps should not be ignored. Knox illustrates a concept expressed in the OHCHR report, that human rights law places duties on states that are relevant to climate change even in the absence of explicit recognition that climate change violates human rights, with the following analogy: "[a] mudslide not caused by a state may not be a violation of human rights law, but that law may still require the state to take steps to protect those in its path."[111] This statement highlights a characteristic of traditional international human rights law: international human rights law places upon states duties to their citizens.[112] This characteristic is a fundamental roadblock in the application of international human rights to cross-border and global problems such as climate change.[113] A recent breakthrough in the international human rights framework, however, can be found in the OHCHR report's assertion that a state's duties are not merely limited to national application: "states have an international duty to cooperate in order to realize human rights."[114] Knox admits that this breakthrough is extremely contentious, given that developed states resist the idea of extraterritorial human rights duties.[115] Its actual contribution to climate negotiations remains unclear, and Resolution 10/4 adopted in response to the OHCHR report does not reference the report's cooperation provision.[116] While countries such as the Maldives pushed for inclusion of the stronger cooperation language, many developing countries disagreed with its inclusion, to the final detriment of the strength of Resolution 10/4.[117]

Thus, the clarification of a human right to a secure environment does not by itself provide an accessible mechanism for compensation for all climate change-induced adaptation strategies. The rights-based dialogue is not yet developed enough to be practical for the particular adaptation context faced by worst-case scenario island nations. Indeed, Limon admits that we are no closer today to approaching a breakthrough in clarifying an explicit

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[110] *Id.*

[111] Knox, *supra* note 23, at 478.

[112] John Knox, *Horizontal Human Rights Law*, 102 A.J.I.L. 1, 1 (2008).

[113] Knox, *supra* note 23, at 478 (asserting that "many developed states have long resisted the proposition that they have human rights obligations to those not within their territory or direct control.).

[114] Knox, *supra* note 23, at 478.

[115] *Id.*

[116] *Id.* at 496.

[117] Limon, *supra* note 3, at 455.

right to a safe and healthy environment than we were in 1972.[118] Likewise, he admits that such a right would face some shortcomings in its contribution to addressing climate change impacts, especially where responsibility for harm lies beyond the victim state's borders.[119] Therefore, the discussion of rights-based progression should not occur to the detriment and exclusion of the progression of other more timely and appropriate legal mechanisms for worst-case scenario countries such as Tuvalu. Rather, multiple approaches to addressing climate change and providing redress for climate change victims should be viewed as complementary. Pursuing redress under other existing legal mechanisms, such as the principle of unjust enrichment, should complement current efforts both to mitigate the impacts of climate change and to advance a human right to a safe and secure environment.

IV. UNJUST ENRICHMENT LITIGATION MAY BE THE BEST LEGAL THEORY AVAILABLE TO CLIMATE CHANGE VICTIMS

In light of the failure of tort liability-based litigation and the insufficiency of rights-based approaches, unjust enrichment may be the best legal theory available to climate change victims. The principle of unjust enrichment is a general principle of international law, and can thus be applied at both international and state levels. Unjust enrichment may be used as an independent basis of liability when a defendant has been enriched at the plaintiff's expense, and thus the principle may be particularly useful to SIDS.

A. The Principle of Unjust Enrichment Is a General Principle of International Law

The principle of unjust enrichment exists at both international and domestic levels.[120] In international law, the principle of unjust enrichment enables a state to lodge a complaint against another state for recovery of money or property on the ground that the other state has enriched itself at the first state's expense without legal justification.[121] General principles of international law "are among the sources of national and international law which have long been recognized and applied in disputes between states . . . [and] are . . . expressions of national legal systems,

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[118] *Id.* at 472.
[119] *Id.*
[120] Charles Manga Fombad, *The Principle of Unjust Enrichment in International Law*, 30 C.I.L.S.A. 120, 121 (1997).
[121] *Id.*

and . . . expressions of unperfected sources of international law."[122] Unjust enrichment can be characterized as a general principle of international law under Article 38(1)(c) of the Statute of the ICJ. Arguably, unjust enrichment was applied in *Lena Goldfields*,[123] *Chorzów Factory*,[124] and *ADC v. Hungary*,[125] and by the Iran-United States Claims Tribunal between 1983 and 1987,[126] to name a few examples. In domestic courts, the practice of unjust enrichment can vary somewhat. Under English common law, for example, the elements of an unjust enrichment claim require receipt of a benefit, enrichment at the plaintiff's expense, unjust retention of the benefit, and consideration of whether the defendant had a defense.[127] Similarly, forms of unjust enrichment are recognized in civil law countries.[128] Thus, because the principle is recognized broadly, it may be considered a general principle of international law.

B. Unjust Enrichment May Be Particularly Useful to SIDS Because the Principle May Be Used as an Independent Basis of Liability When a Defendant Has Been Enriched at the Plaintiff's Expense

The principle of unjust enrichment is particularly relevant to SIDS because plaintiffs may be able to pursue a claim based in unjust enrichment as an independent basis of liability when a defendant has been enriched at the plaintiff's expense. Moreover, as a gap-filling legal device, unjust enrichment may have a particular role for SIDS where a relationship exists between GHG emissions and their associated benefits to emitter countries on the one hand, and the negative consequences of those emissions on the other. The climate change-related problems facing SIDS cannot be easily redressed by other traditional legal categories (such as tort, contract, or property law), and thus unjust enrichment may fill that liability gap.

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[122] Cherif M. Bassiouni, *A Functional Approach to "General Principles of International Law"*, 11 MICH. J. INT'L L. 768, 768 (1990).

[123] Ana T. Vohryzek-Griest, *Unjust Enrichment Unjustly Ignored: Opportunities and Pitfalls in Bringing Unjust Enrichment Claims Under ICSID*, 31 LOY. L.A. INT'L & COMP. L REV. 501, 503 (2010).

[124] *Id.* at 522-27.

[125] *Id.* at 529-36.

[126] John R. Crook, *Applicable Law in International Arbitration: The Iran-U.S. Claims Tribunal Experience*, 83 A.J.I.L. 278, 292-93 (1989).

[127] Brice Dickson, *Unjust Enrichment Claims: A Comparative Overview*, 54 CAMBRIDGE L.J. 100, 105-06 (1995).

[128] *Id.* at 112. Dickson specifically mentions the Civil Codes of Austria, Germany, Greece, Italy, Japan, and the Netherlands as examples. The French use of unjust enrichment has expanded so that it is now recognized in both administrative and private law; however, its scope is still narrower than that of common law countries. *Id.* at 113.

1. The Principle of Unjust Enrichment Can Be Used as an Independent Basis of Liability

Plaintiffs may be able to pursue a claim based in unjust enrichment as an independent basis of liability when a defendant has been enriched at the plaintiffs' expense. The principle of unjust enrichment reflects the moral tenet that one person should not obtain unfair advantage at another's expense.[129] Further, unjust enrichment originated as a gap-filling legal theory when traditional legal categories (tort, contract, and property law) were insufficient mechanisms to secure recovery for a legal wrong.[130] Using the English common law model from the United States, for example, the Law of Restitution and supporting case law have developed three elements necessary for a successful claim based in unjust enrichment: 1) an enrichment must accrue to the defendant, 2) the enrichment must occur at the expense of the plaintiff, and 3) the enrichment must be unjust.[131] Such a claim "must also survive any countervailing defenses or considerations."[132] With respect to the first element, the definition of "enrichment" may be broadly construed. One approach is to "identify an enrichment as something positive, [for example], an accretion of wealth."[133] The second element focuses on the connection between the enrichment and the plaintiff's loss. This connection is most obvious when the defendant derives a gain by causing loss to the plaintiff.[134] However, the connection is sufficient even when the defendant is not the cause-in-fact of the loss. For example, the defendant need not be the actual wrongdoer, but merely retains the benefit conferred by the plaintiff's loss.[135] Finally, with respect to the third element a plaintiff must prove for a claim of unjust enrichment, the proffered enrichment is considered unjust when "a defendant's retention of the benefit at [the] plaintiff's expense would offend notions of fairness or equity."[136]

In response to a plaintiff claiming damages based in unjust enrichment, a defendant may attempt to invalidate the plaintiff's allegations of injustice where, on balance, the benefits accrued by the plaintiff outweigh

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[129] Emily Sherwin, *Symposium: Restitution and Unjust Enrichment: Restitution and Equity: An Analysis of the Principle of Unjust Enrichment*, 79 TEX. L. REV. 2083, 2084, 2104 (2001).

[130] David N. Fagan, *Achieving Restitution: The Potential Unjust Enrichment Claims of Indigenous Peoples Against Multinational Corporations*, 76 N.Y.U.L. REV. 626, 629 (2001).

[131] *Id.* at 640-41

[132] *Id.*

[133] *Id.* at 642.

[134] *Id.* at 644.

[135] *Id*. at 644 n.91.

[136] Fagan, *supra* note 130, at 646.

the enrichment gained by the defendant at the plaintiff's expense.[137] However, this defense has its weaknesses, regardless of its legal validity. In evaluating this defense in the case of indigenous peoples and multinational corporations, one authority declared:

> [M]erely producing a positive economic effect in a country may not mitigate sufficiently the unjustness to the indigenous peoples who bear the primary burden of the investment without receiving any of the benefit . . . . [T]he retention of a benefit obtained at the expense of a largely defenseless group would seem to offend notions of "good conscience" and, therefore, be precisely the activity against which the unjust enrichment doctrine is designed to protect.[138]

Thus, the principle of unjust enrichment is uniquely insulated from the most likely defense it would face in litigation: offsets for benefits received by the plaintiffs.

2. The Principle of Unjust Enrichment in the Climate Change Context Is Particularly Compelling for SIDS

The principle of unjust enrichment may, therefore, have a role for victims of climate change in SIDS: anthropogenic emissions of GHGs by specific nations are irrefutable, and the subsequent problems facing SIDS cannot be easily redressed by other traditional legal categories such as tort, contract, or property law. The scenario is ripe for application of unjust enrichment. For example, the first element of an unjust enrichment claim, that an enrichment must accrue to the defendant, is satisfied in the Tuvaluan context. Emitter countries have accrued wealth and economic development by developing industries that contribute to GHG emissions with few restrictions.

The second element, that the enrichment must occur at the expense of the plaintiff, is also satisfied in the Tuvaluan context: the wealth and economic development enjoyed by the people in countries such as the United States and Australia accrued to the detriment of SIDS' land (both biophysically and geographically)—to the extent that the island nations must seriously consider permanent relocation for their entire populations in order to ensure survival. The important point here is that unjust enrichment does not require that the plaintiff demonstrate his "expense" was due to the guilt

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[137] *Id.* at 650.
[138] *Id.* at 651.

of a particular wrongdoer defendant—it only requires a showing that the defendant has been enriched.[139] This allows the relationship among the parties to be somewhat attenuated: SIDS may establish a relationship as plaintiffs to defendant emitter countries by relying on available scientific analyses supporting GHG emissions and rising sea levels, and they may establish a relationship between emitters (both past and present) and the defendants—the people now living in these countries and enjoying their enriched economic status—by linking the identities of the defendants through long-lived entities, such as existing governments and the people they represent.[140] In other words, the defendants benefit, a third party emits, and the plaintiff loses. Thus, unjust enrichment is intrinsically appropriate for climate change litigation because of its inherent ability to avoid the requirement that the *defendant* cause the plaintiff's injury, and its ability to instead focus on the benefits retained by the defendant.

Finally, the third element for a claim of unjust enrichment, that the enrichment must be unfair, is also satisfied in the Tuvaluan context.[141] While citizens of the United States and Australia enjoy a relatively high quality of life as a result of each country's emissions,[142] Tuvaluans must contemplate submerged lands and the loss of their status as a nation. That Tuvalu may lose its ability to determine the location and future of its people due to the conduct of big emitters is strikingly unfair. Thus, not only is the

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[139] Kaimipono David Wenger, *Causation and Attenuation in the Slavery Reparations Debate*, 40 U.S.F.L. REV. 279, 301 (2006).

[140] *See id.* at 301, 303. Notably, in order to adequately connect past wrongs to present harms, the slavery reparations cases in the United States that debated unjust enrichment claims had to establish three relationships: the relationship between the original victim and the wrongdoer, the relationship between the original victim and the plaintiff, and the relationship between the original wrongdoer and the defendant. *See* Eric A. Posner & Adrian Vermeule, *Reparations for Slavery and Other Historical Injustices*, 103 COLUM. L. REV. 689, 698 (2003). Using unjust enrichment for climate change victims in the SIDS context does not require establishing a relationship between plaintiff and an original victim because the plaintiff is the "original victim" here. One cannot help but wonder if fewer attenuated relationships may help build a stronger unjust enrichment case.

[141] Additionally, under the theory of unjust enrichment, the legality of the unjust conduct is no defense. A defendant may be unjustly enriched "without having committed any other civil wrong." Margalynne Armstrong, *Reparations Litigation: What About Unjust Enrichment?*, 81 OR. L. REV. 771, 778 (2002).

[142] For examples of measures of per-capita CO_2 emissions in 2004 by country, *see* Eric. A. Posner & Cass. R. Sunstein, *Climate Change Justice*, 96 GEO. L.J. 1565, 1603-04 (2008). Notably, Australia is ranked the ninth highest emitter, while Qatar and Kuwait are ranked first and second. Tuvalu and the Maldives do not rank among the seventy-five highest per capita emitters of CO_2 and are thus excluded from discussion in the article. Note that per capita emissions rankings do not necessarily reflect national emissions.

third element of a claim for unjust enrichment satisfied, but it is likely that a defense challenging the "unjustness" of the enrichment would fail.[143]

3. Potential Obstacles Facing Tuvalu in Applying Unjust Enrichment May Be Overcome

For Tuvalu to prevail under a claim of unjust enrichment, several obstacles would have to be overcome. Tuvalu would have to consider the most appropriate venue in which to bring such a claim, it would have to strategically determine how to characterize the parties to the claim, and it would have to navigate sovereign immunity obstacles.[144]

Tuvalu would first have to determine in which venue to bring a claim against an emitter for unjust enrichment, and how to characterize the parties. The venue could include the ICJ, other international tribunals, or domestic

[143] Daniel Farber has advocated for the application of an unjust enrichment paradigm to the context of climate change victims. Farber explains that a number of injuries experienced by climate change victims are appropriate for the application of the paradigm because injuries "involving changes in basic geographic characteristics such as sea level . . . are readily identifiable, do not raise the complicated causation issues that plague other potential forms of damages, and can be measured (at least roughly) in a fairly straightforward way." Daniel A. Farber, *Basic Compensation for Victims of Climate Change*, 155 U. PA. L. REV. 1605, 1607 (2007) [hereinafter Farber, *Basic Compensation for Victims of Climate Change*]. Farber explains that three categories of harm fit the profile of appropriate injuries for redress under a compensation scheme: harm to natural systems that react strongly to temperature changes (such as coral reefs and thus also to the fisheries they support), harm related to sea level rise (and thus by extension to related coastline diminishment), and harm related to changes in water availability (and thus to adaptation measures taken to combat the impacts of those changes). *Id.* at 1610-13. However, while Farber appears to be advocating for the application of unjust enrichment, his analysis is framed in terms of "causation," "harms," "liability" or "culpability," and "damages." *See, e.g.*, Daniel A. Farber, *The Case for Climate Compensation: Justice for Climate Change Victims in a Complex World*, 2008 UTAH L. REV. 377, 389-94 (2008) [hereinafter Farber, *The Case for Climate Compensation*]. Such language is typically associated with tort law. Ultimately, Farber presents a moral responsibility argument for the reasons why emitter countries should take responsibility of their own past and future emissions, regardless of the actions or contributions of other emitter countries; however, the distinction between tort principles and the principle of unjust enrichment in Farber's analysis remains somewhat unclear.

[144] Additionally, the parties, and ultimately the tribunal, would need to determine the amount awarded in damages. Unlike compensatory damages, which focus on the plaintiff's loss, the focus of damages calculation in unjust enrichment is on the defendant's gains. ELAINE W. SHOBEN, WILLIAM MURRAY TABB & RACHEL M. JANUTIS, REMEDIES, CASES AND PROBLEMS 808 (Foundation Press 3d. 2002). The climate change context raises difficult issues in measuring the defendant's gains (monetarily) at the plaintiff's expense. While Daniel Farber has suggested that a strict liability approach to the U.S.'s contribution to climate change since 2004 would amount to $4.5 trillion, this would be subject to reduction based on the amount of harm (in dollars) the U.S. has done to itself through its climate change contributions, subject to reduction based on offsets by other emitters, and on the proportion of harm to a particular recipient (e.g., Tuvalu) rather than the whole world. Farber, *The Case for Climate Compensation*, supra note 143, at 406. As of October, 2010, it appears that no one has attempted to calculate a plaintiff country's loss due to climate change for purposes of calculating unjust enrichment damages (this could include the profit gained by polluting in ways that contributed to climate change). The lack of access to such information introduces another practical problem with the unjust enrichment approach.

courts,[145] while the parties could include the State of Tuvalu and any number of emitter states. The answer to both questions, however, hinges on the concept of sovereign immunity. Generally, "the immunity of a state from the jurisdiction of the courts of another state is an undisputed principle of customary international law."[146] The restrictive theory of sovereign immunity holds that "a foreign nation's immunity does not apply to claims arising from the nation's private or commercial acts, but protects the nation only from claims arising from its public functions."[147] Other than the exception presented under the restrictive theory of sovereign immunity, the only way the doctrine can be circumvented is by waiving or submitting to jurisdiction.[148]

One glaring option for Tuvalu to avoid sovereign immunity issues is to sue emitter countries at the ICJ that submit to the ICJ's compulsory jurisdiction, such as Australia, under the theory of unjust enrichment. The other, more complicated, option is to sue any country (including those that do not submit to compulsory jurisdiction before the ICJ) in either the ICJ, or in a (most likely Tuvaluan) domestic court. One possible outcome with the latter option would be that the defendant country would submit to jurisdiction if it felt confident Tuvalu would not prevail, in an effort to shut down litigation once and for all. Such an outcome would likely fail to produce damages for Tuvalu, but would still function to further the political discussion for developing a monetary mechanism which would compensate climate change victims. In the alternative, Tuvalu could try to creatively engineer a strategy using the restrictive theory of sovereign immunity, and demonstrate that all or some portion of the actions taken when the emitter country was emitting would satisfy the commercial exception to sovereign immunity. Much work on the particular logistics and strategies under a theory of unjust enrichment is needed; however, the applicability of the theory is highly relevant to the climate change context in Tuvalu.

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[145] Because I focus on the ICJ, international law, and domestic law, I will not examine other tribunals in detail. However, any analysis considering other international tribunals should note whether the judgments would be binding, whether the court could award monetary damages, whether the claimant would have to exhaust local remedies prior to bringing the claim to the tribunal, and whether the judgment would contribute to the development of international law.

[146] RESTATEMENT (THIRD) OF THE FOREIGN RELATIONS LAW OF THE UNITED STATES, Introductory Note to Ch.5 (1987).

[147] BLACK'S LAW DICTIONARY 1430 (9th ed. 2009).

[148] Waiver may be explicit, for example, consent via treaty, or implicit, for example, filing responsive pleadings, consent to arbitration in a foreign country, or where the foreign country's law has been agreed to prevail in advance. *See, e.g.*, R. DOAK BISHOP, CRAWFORD BISHOP & W. MICHAEL REISMAN, FOREIGN INVESTMENT DISPUTES: CASES, MATERIALS, AND COMMENTARY 17 (Kluwer Law International 2005).

V. CONCLUSION

Legal remedies for climate change victims continue to elude proponents of tort liability and human rights. While tort liability-based litigation in the climate change context encounters substantial substantive and procedural problems, the application of human rights frameworks are stymied by a slowly evolving link between climate change and human rights. For countries such as Tuvalu, pressure is mounting to find an alternative legal mechanism that may help produce the resources necessary to adapt to climate change at a minimal loss to their lands and livelihoods. Unjust enrichment may be used as an independent basis of liability when a defendant has been enriched at the plaintiffs' expense, enabling the plaintiffs to avoid specific proximate cause, cause-in-fact, and sanction requirements associated with torts, and the legal obligation and enforcement problems associated with the process of developing and clarifying human rights law. Thus, the principle of unjust enrichment has the potential to be particularly useful to Tuvalu and other SIDS in the climate change context.